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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/581,655

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Gunter Endres

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EXAMINER

GRABOWSKI, KYLE ROBERT

ART UNIT

PAPER NUMBER

3725

MAIL DATE

DELIVERY MODE

07/15/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/581,655	Applicant(s) ENDRES ET AL.	
	Examiner Kyle Grabowski	Art Unit 3725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-19 is/are pending in the application.
- 4a) Of the above claim(s) 16-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 1-4, 6-15 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities: “visibe” is a typographical error construed to mean “visible”. Appropriate correction is required.

Rejections - 35 USC § 102/ 35 USC § 103

2. Claims 1-15 and 19 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Scantlin (US 3,802,101).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4, and 6-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Scantlin (US 3,802,101).
5. In respect to claim 1 and 2, Scantlin discloses a security element comprising: a core sheet 8 (which may constitute a metal layer e.g. aluminum; Col. 7, 8-14), which

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therein is introduced identifiers 6 in the form of patterns; the metal layer 8 is disposed between translucent coating layers 10 and 12 having “sufficiently low transmissivity to obscure the coded regions [identifiers 6] of the core sheet 8 from view by the naked eye” (Col. 5, 66-67). Although Scantlin does not disclose a “watermark effect” while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997). (MPEP 2114). The structure disclosed in Scantlin will perform this effect (see Abstract) (i.e. the “coded region” identifiers transmit more light than its surroundings causing a “positive” image, and upon reflection, reflect less than their surroundings). Furthermore, Scantlin does not disclose the coating layers 10 and 12 having a visible spectral range of less than 10% or more specifically less than 5% however the structure as disclosed is at least capable of performing this function (i.e. this visible spectral range depends on the amount and intensity of light, surrounding ambient light, etc.). Furthermore, because the transmissivity is positive and allows some light as discussed above, the transmittance is *sufficient* for viewing the metal layer and identifiers in reflected light (i.e. the transmittance does not impede the difference in reflection between the coded hole regions and the core region). In respect to the amended subject matter, holes 6 are local transformations of the metal layer into transparent modifications (Fig. 3).

6. In respect to claim 3, Scantlin discloses that the coating layers 10 and 12 may be made of a white polyvinyl chloride (therefore appearing white in reflected light).

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7. In respect to claims 4, Scantlin discloses that the identifiers occur through transparencies in the metal layer (holes) which are punched through the core sheet 8 (Col. 3, 35-37). Regardless, although product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)
8. In respect to claim 6, Scantlin doesn't disclose that the coating layers do not exhibit an appreciable absorption of laser radiation however features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. Again, this limitation depends largely on the amount of radiation used, and what one considers to be “appreciable absorption”.
9. In respect to claims 7 and 8, Scantlin discloses that the identifiers (holes) 6 convey coded information (Col. 5, 55-56), which can be construed to personal data, data relating to the data carrier, *or the like*.
10. In respect to claim 9, Scantlin discloses a “screened form” of identifiers 6 embodied as dots (Fig. 1).
11. In respect to claim 10, Scantlin discloses the metal layer 8 is imprinted on one of the coating layers 10 and 12 (Fig. 2).

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12. In respect to claim 11, Scantlin does not disclose that the metal layer is vapor deposited however although product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)

13. In respect to claim 12, Scantlin discloses that the coating layers 10 and 12 are provided with protective layers 14 and 16 which are transparent (see Fig. 2).

14. In respect to claims 13 and 14, Scantlin discloses the security element embodied on the interior of an identification card (Fig. 1).

15. In respect to claims 15, Scantlin discloses additional indicia 4, protected underneath the protective layer 14 and therefore may be employed as a further security feature.

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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17. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

18. Claims 1-4 and 6-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scantlin (US 3,802,101).

19. In respect to claim 1 and 2, Scantlin discloses a security elements comprising: a core sheet 8 (which may constitute a metal layer e.g. aluminum; Col. 7, 8-14), which therein is introduced identifiers 6 in the form of patterns; the metal layer 8 is disposed between translucent coating layers 10 and 12 having "sufficiently low transmissivity to obscure the coded regions [6] of the core sheet 8 from view by the naked eye" (Col. 5, 66-67). Although Scantlin does not disclose a "watermark effect" while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997). (MPEP 2114). The structure disclosed in Scantlin will perform this effect (see Abstract) (i.e. the "coded region" identifiers transmit more light than its surroundings causing a "positive" image, and upon reflection, reflect less than their surroundings).

20. Scantlin does not explicitly disclose that the coating layers 10 and 12 have a visible spectral range (synonymous with transmissivity of visible light) of less than 10%,

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or more specifically, less than 5%, however the claim would have been obvious because a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary common sense. Scantlin discloses that the coded regions (holes) have a higher transmissivity than the surrounding core sheet regions, such that "as radiant energy impinges upon the core sheet 8, it passes through the holes 6 to convey coded information but does not pass through core sheet 8" (Col. 5, 53-55); thus it can be inferred that, at a given frequency or intensity, the holes 6 have a given transmissivity while the surrounding region of core sheet 8 has zero transmissivity. Scantlin further discloses that the coating layers 10 and 12 have a transmissivity higher than the portion of the core sheet 8 having the lowest transmissivity (in this case zero, for the surrounding region of the core sheet); it can be further inferred, then, that the coating layers 10 and 12 have a transmissivity greater than zero, yet, it is desired that the transmissivity is "sufficiently low transmissivity to obscure the coded regions [6] of the core sheet 8 from view by the naked eye" (Col. 5, 66-67). Because the transmissivity is positive and allows some light as discussed above, the transmittance is *sufficient* for viewing the metal layer and identifiers in reflected light (i.e. the transmittance does not impede the difference in reflection between the coded hole regions and the core region).

21. By the applicant's own admission "the present invention depends precisely on the fact that the foils [coating layers] are not completely nontransparent, but rather admit a certain, if small, portion of the light when illuminated from the back of the card" (Spec,

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Pg 6). Scantlin discloses this: coating layers which are not completely nontransparent (having a transmissivity greater than zero) and therefore admitting a small portion of light. Routine experimentation, such as changing the thicknesses of the coating layers (and thus their transmissivity) would result in numerical transmissivities less than 5%, which one of ordinary skill would find to be sufficiently low to obscure underlying indicia.

22. In respect to claim 3, Scantlin discloses that the coating layers 10 and 12 may be made of a white polyvinyl chloride (therefore appearing white in reflected light).

23. In respect to claims 4, Scantlin discloses that the identifiers occur through transparencies in the metal layer (holes) which are punched through the core sheet 8 (Col. 3, 35-37). Regardless, although product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)

24. In respect to claim 6, Scantlin doesn't disclose that the coating layers do not exhibit an appreciable absorption of laser radiation however features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. Again, this limitation depends largely on the amount of radiation used, and what one considers to be “appreciable absorption”.

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25. In respect to claims 7 and 8, Scantlin discloses that the identifiers (holes) 6 convey coded information (Col. 5, 55-56), which can be construed to personal data, data relating to the data carrier, *or the like*.

26. In respect to claim 9, Scantlin discloses a “screened form” of identifiers 6 embodied as dots (Fig. 1).

27. In respect to claim 10, Scantlin discloses the metal layer 8 is imprinted on one of the coating layers 10 and 12 (Fig. 2).

28. In respect to claim 11, Scantlin does not disclose that the metal layer is vapor deposited however although product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)

29. In respect to claim 12, Scantlin discloses that the coating layers 10 and 12 are provided with protective layers 14 and 16 which are transparent (see Fig. 2).

30. In respect to claims 13 and 14, Scantlin discloses the security element embodied on the interior of an identification card (Fig. 1).

31. In respect to claims 15, Scantlin discloses additional indicia 4, protected underneath the protective layer 14 and therefore may be employed as a further security feature.

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32. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scantlin (US 3,802,101) in view of Hurier (US 5,651,615). Scantlin does not disclose the additional indicia 4 featuring a luminescent substance however Hurier teaches using a luminescent ink for indicia 38 (Fig. 3) and it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the indicia taught in Scantlin with luminescent ink in view of Hurier to provide high forgery-proofness through excitation under ultraviolet light (0043).

Response to Arguments

33. Applicant's arguments filed on 06/15/10 have been fully considered but they are not persuasive.

34. In response to the amendment, the applicant claims that Scantlin does not disclose the identifiers being formed "through a local transformation of the metal into a transparent or translucent modification", however the examiner respectfully disagrees: Scantlin teaches holes 6 which are local transformations of metal into a transparent modification; additionally, the coded regions may be formed by modifications in transparency (Col. 4, 28-35); as discussed above, the formation of the holes via laser is patently irrelevant in an apparatus claim.

35. In response to the amendment, that applicant also claims that Scantlin does not disclose that the coating layers' "transmittance in the visibe [sic] range is sufficient to allow viewing of the metal layer and identifiers under reflected light", however the

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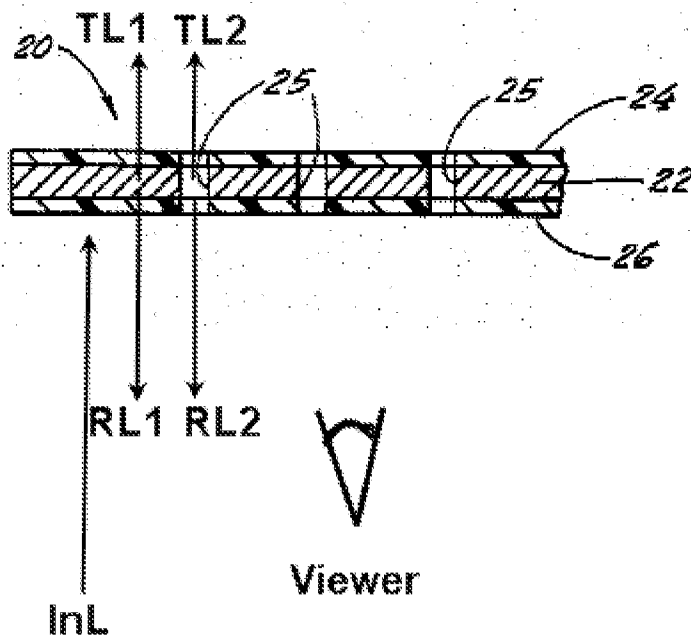
examiner maintains his position that the structure of Scantlin is capable of this functionality. The applicant continually cites that the layers of Scantlin make the underlying layer “difficult to observe” and that the holder is “probably not aware of the coded information” but this does not mean that that transmittance in the visual range is not sufficient to allow viewing (for example by a trained observer, or through application of intense light).

36. In an attempt to clarify the position of the examiner in regards to reflectance/transmittance of Scantlin, please see the following diagram. “InL” represents the light incident upon the security element that will be viewed in reflection by the “Viewer”; “TL1” and “TL2” represent the transmitted light through the metal layer and coded regions, respectively; “RL1” and “RL2” represent the reflected light rebounding off the metal layer and coded regions, respectively. Because the coating layers 24 are uniform and of the same material, their reflectance, absorption, and transmittance are moot for the purposes of this discussion (which is attempting to show how the disclosure in regards to transmittance structurally relates to reflectance, in respect to the coded regions and uncoded regions). It can be seen then that the difference between RL1 and RL2 are the respective reflectance of the metal layer and the holes 25. Naturally, holes 25 have no absorption or reflection, just pure 100% transmission, and thus provide no additional reflected light energy RL2 (in addition to the reflection off of the first coating layer 26 equal across both the coded and uncoded regions). The only case where there can be no discernable difference between the reflection of the metal layer (RL1) and holes 25 (RL2) would be if the metal layer 22 had

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no reflection (and pure transmission/ absorption), however as is known in the art metal layers have at least some reflection (they are not black bodies or purely transmissive).

In conclusion, RL1 provides additional light energy in reflection than RL2, providing a difference that is discernable at least in some conditions. Scantlin admits the light energy may not be strong i.e. difficult to observe as a result of the low transmittance of the coating layers, however the present application shares this low transmission coating layer that "appears white" (clm 3).



37. In short, the examiner feels that the applicants have failed to define **structural** differences between the present application and Scantlin.

Conclusion

38. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyle Grabowski whose telephone number is (571)270-3518. The examiner can normally be reached on Monday-Thursday, every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dana Ross can be reached on (571)272-4480. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kyle Grabowski/
Examiner, Art Unit 3725

/Dana Ross/
Supervisory Patent Examiner, Art
Unit 3725